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Hugh James O'Donnell

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OTIS ELEVATOR COMPANY  
INTELLECTUAL PROPERTY DEPARTMENT  
10 FARM SPRINGS  
FARMINGTON, CT 06032

EXAMINER

GRAY, JILL M

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/522,191  
Filing Date: January 25, 2005  
Appellant(s): O'DONNELL, HUGH JAMES

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David J. Gaskey  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 11, 2009 appealing from the Office action mailed January 9, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.  
In particular, claims 1-4 and 6-16 are under appeal.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of claims 1-4, 7-9, and 11-13 under 35 U.S.C. 102(b) as being anticipated by Lambert, 1,412,310.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

WO 01/14630 A1	PREWO et al.	3-2001
2003/0092524 A1	BARANDA et al.	5-2003
3,441,641	ROBERTS	4-1969

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 7-8, 10, and 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Baranda et al., US 2003/009252 A1 (Baranda).

Claims 13 and 14 are product-by-process claims. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” MPEP 2113

Baranda discloses an elevator belt assembly comprising a plurality of cord within a jacket and a method of making, said method comprising aligning the cords in a desired alignment, tensioning the cords and applying a jacket to the cords during the tensioning process, as required by claims 1, 7, and 13. See [0034]. The jacket is a

urethane, per claims 10 and 14, and the belt has limited stretch as required by claim 8.  
See [0009], [0020], [0029] and [0034].

Therefore the teachings of Baranda anticipate the invention as claimed in present claims 1, 7-8, 10 and 13-16.

3. Claims 7-10 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by PCT Patent Publication WO 01/14630 A1 (hereinafter Prewo).

Claims 13 and 14 are product-by-process claims. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” MPEP 2113

Prewo teaches a tension member for an elevator comprising organic fibers and steel fibers encased in a polyurethane jacket. See page 3, lines 7-14 and page 5, line 3.

Accordingly, the teachings of Prewo anticipate the invention as claimed in present claims 7-10 and 13-15.

#### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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5. Claims 1-3, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Patent Publication WO 01/14630 A1 (hereinafter Prewo) in view of Roberts, 3,441,641.

Prewo is as set forth above and teaches a tension member for an elevator comprising organic fibers and steel fibers because the combined organic and steel fibers result in a shared load that provides significantly enhanced properties. See page 3, lines 20-26. In addition, Prewo teaches that the tension member includes individually load carrying cords, strands and/or wires encased in a common layer of coating but does not teach the specific method steps associated therewith. Roberts teaches an elevator assembly belt formed by the method comprising positioning and tensioning a plurality of longitudinally extending members in a mold, closing the mold and applying a selected material over the tensioned members, whereby said process ensures the tension members remain straight and parallel with respect to each other and results in an elevator belt assembly with a high degree of flexibility and reduced strain. It would have been obvious to one having ordinary skill in the art to form the tension member taught by Prewo by using a method that includes aligning the cords, tensioning the cords and applying a jacket material to the cords, as taught by Roberts to product a material having a high degree of flexibility and reduced strain and wherein the tension members remain straight and parallel. Claim 2 contains limitations drawn to assumptions based upon the future intended use of the belt and are not specific and claim 11 is a product claim, wherein limitations drawn to the process of making add no patentable weight. Nonetheless, Prewo and Roberts are both drawn to the formation of

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tension members and belts to be used in an elevator assembly system. The skilled artisan during routine experimentation would have been reasonably motivated to tension the cords using a load that corresponds to that which would result in the safe operation of the car and counterweight. As to claim 3, applicants should note that the limitation of claim 3 is not specific. Accordingly, it is the examiner's position that in the absence of a clear defined percentage any load necessarily corresponds to "a desired percentage of a breaking strength of the cords." As to claim 6, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make an elevator belt assembly by including cords made of a synthetic material in order to obtain the efficacious properties associated therewith.

Therefore, the teachings of Prewo in view of Roberts would have rendered obvious the invention as claimed in present claims 1-3, 6, and 11.

#### **(10) Response to Argument**

Appellants argue that none of the references disclose or in any way suggest Appellants' concept of pre-stretching cords in an elevator belt assembly to increase a length of the cords during an assembly process.

In response thereto, the examiner disagrees for reasons stated previously and set forth herein. In particular, it is the examiner's position that the general requirement of the claims of a process that includes tensioning of the cords a selected amount to stretch and increase a length of the cords and an elevator belt comprising cords that are stretched to an increased length is anticipated by or rendered obvious by the prior art of record.

**Ground I – The rejection of claims 1, 7-8, 10, and 13-14 under 35 U.S.C. 102(e) as being anticipated by U.S. 2003/0092524 (Baranda)**

Appellants argue that the Examiner's position is not supported by a reasonable interpretation of the references, further arguing that there is nothing in the Baranda reference that in any way indicates that any cords are stretched or lengthened during a process of making an elevator belt assembly, further arguing that the second step of claim 1 includes stretching and increasing a length of the cords and that Baranda is silent regarding any stretching or lengthening of the cords.

In this regard, there is no clear factual evidence on this record that the cords of Baranda are not stretched or lengthened. The claims do not provide any amount or degree of stretching or lengthening of the cords. Nor is there a clear basis of what constitutes a sufficiently high level to stretch and increase a length of the cords. The claims are not specific, hence it is the examiner's position that minute and incremental degrees of stretching and lengthened are anticipated by the present claims. Appellants have provided no evidence to substantiate the allegation that the cords of Baranda are not stretched.

Appellants argue that there is nothing in Baranda that in any way indicates that the any of the tensions applied would cause the cords to be stretched or their lengths to increase, further arguing that the only mentioned tension in the Baranda reference is 50 Newtons which does not rise anywhere near the level of a load sufficient to prestretch a cord and increase its length as claimed by appellants.



In this regard, claims 1, 7-8, 10, and 13-14 are not limited to any amount of load bearing capabilities. Thus this argument is not germane. Nonetheless, it should be noted that the belt of Baranda is used as an elevator belt. The skilled artisan would immediately envisage the strength or load bearing capabilities to hold an elevator, etc. Again, as set forth above, the claims do not require any particular amount or degree of stretching. Hence, any degree of tensioning would anticipate the present claims.

Claims 7 and 13

Appellants argue that claims 7 and 13 each include the jacket which comprises a substantially noncompressible urethane, keeping the cords stretched a desired amount without any external load applied to the belt and that there is no indication whatsoever in the Baranda reference regarding such an arrangement.

In this regard, Baranda discloses that his jacket can be urethane, further teaching the same type of urethane disclosed by appellants in their specification as being suitable, namely, an ether-based polyurethane, such as MDI. See Baranda, [0020].

Claim 8

Appellants argue that claim 8 specifically recites that the belt assembly "has limited elastic stretch" and that the belt of Baranda would have elastic stretch that would occur once such a belt assembly is installed in an elevator system.

In this regard, there is no clear factual evidence on this record to clearly substantiate appellants' argument that the belt of Baranda has elastic stretch.

**Ground II – The rejection of claims 7-10 and 13-15 under 35 U.S.C. 102(b) as being anticipated by PCT Patent Publication WO 01/14630 (Prewo)**

Appellants argue that the Prewo reference is silent regarding any stretching of the cords during a manufacturing process such that the cords are maintained in a prestretched condition within the jacket without any external load, further arguing that it is not possible for the jacket of the Prewo reference to keep the cords stretched without any external load applied to the belt assembly and the only stretching mentioned in Prewo occurs as a result of an external load.

In this regard, claims 7 and 13 are product claims, and thus arguments with respect to the prior art process are not germane. It is the product itself that must be distinguished from the prior art product. In addition, there is no clear factual evidence on this record to substantiate appellants argument that it is not possible for the jacket of Prewo to keep the cords stretched without any external load applied.

Appellants argue that claim 13 is a product-by-process claim and that the resulting product has characteristics that are patentable distinct from the “product” of the Prewo reference and that there is nothing in the Prewo reference that teaches, “the cords remain stretched within the jacket without any external load applied to the belt assembly” as recited in claim 13.

In response thereto, it is the examiner's position that once the examiner provides a rational tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. See MPEP 2113. Again as set forth

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previously, appellants have provided no clear factual evidence on this record clearly distinguishing the present claimed invention from the prior art.

Claim 8

Appellants argue that claim 8 specifically recites that the belt assembly "has limited elastic stretch" and that the belt of Prewo would only occur subsequent to elastic stretch while the belt is in use in the Prewo reference, in other words, the only possible reasonable interpretation of the Prewo reference is that it would experience significant elastic stretch.

As set forth previously, there is no clear factual evidence on this record to substantiate appellants' allegation.

**Ground III – The rejection of claims 1-4, 7-9, and 11-13 under 35 U.S.C. 102(b) as being anticipated by US Patent 1,412,310 (Lambert)**

Appellants argue that Lambert does not include using a noncompressible urethane material as a jacket.

In this regard, this rejection has been withdrawn by the examiner.

**Ground IV – The rejection of claims 1-3, 5-6, and 11 under 35 U.S.C. 103(a) as being unpatentable over PCT Patent Publication WO 01/14630 A1 (Prewo) in view of Roberts 3,441,641**

Appellants argue that Prewo does not provide any indication of any tension on the cords to stretch the cords to increase their length in connection with applying a jacket material to the cords, nor is there any mention of the cords remaining stretched within the jacket without any external load applied to them and that there is nothing in

the Roberts reference that teaches stretching or increasing a length of the cords.

Appellants further arguing that the only tension is that the reference is to hold the cords straight and therefore it is impossible to make the leap to the techniques recited in appellants' claim without using improper hindsight.

In the instant case, the teachings of Roberts would have provided a suggestion to the skilled artisan for a method step of tensioning the cords and applying a jacket material to the cords. It would have been obvious to one having ordinary skill in the art to modify the teachings of Prewo by using a method as taught by Roberts to produce a material having reduced strain. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellants' argument regarding Baranda have been noted but are not germane to the present rejection.

Claims 2 and 11

Appellants argue that there is nothing whatsoever within Prewo or any of the cited references that in any way corresponds to making an elevator belt assembly and

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tensioning cords to stretch them using a load of the type recited in claims 2 and 11 and that none of the references discloses a load.

In this regard, the examiner's position is as set forth above, namely, that claim 2 contains limitations drawn to assumptions based upon the future intended use of the belt and are not specific and claim 11 is a product claim, wherein limitations drawn to the process of making add no patentable weight. Nonetheless, Prewo and Roberts are both drawn to the formation of tension members and belts to be used in an elevator assembly system. The skilled artisan during routine experimentation would have been reasonably motivated to tension the cords using a load that corresponds to that which would result in the safe operation of the car and counterweight. Appellants' arguments drawn to Baranda have been noted but are not found to be germane to the present rejection.

### Claim 3

Appellants argue that there is nothing in Prewo that comes anywhere near suggesting using a load that is a desired percentage of a breaking strength of the cords when tensioning them sufficiently to stretch the cords and that there is no basis for the rejection of claim 3.

In this regard, the examiner's position is as set forth above, namely, that the limitation of claim 3 is not specific. Accordingly, it is the examiner's position that in the absence of a clear defined percentage any load necessarily corresponds to "a desired percentage of a breaking strength of the cords."

### Claims 4 and 12

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Appellants' arguments regarding these claims have been noted. However, these claims are not included in the present rejection. Accordingly, arguments drawn thereto are not germane.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jill Gray/

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